UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/400,154	09/21/1999	HIDEO TAKIGUCHI	1232-4568	3080

7590 04/22/2004	**EXAMINER**
MORGAN & FINNEGAN LLP	MISLEH, JUSTIN P
345 PARK AVENUE	
NEW YORK, NY 10154	

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/400,154	TAKIGUCHI ET AL.
	Examiner	**Art Unit**	
	Justin P Misleh	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 26* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 February 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *4*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

2.   The disclosure is objected to because of the following informalities: lack of clarity.

On page 17 (line 8), the Applicant includes the acronym "STI" without clarifying its

meaning. The Examiner must refer to the *Background of the Invention* section on page 2 (lines

19 and 20) to learn that "STI" stands for "Still Image Captures Architecture and Interfaces". The

Examiner recommends including the text of page 2 in page 17.

Appropriate correction is required.

Drawings

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they

include the following references sign not mentioned in the description: 5 (figure2), S409 (figure

4), S607 (figure 6), 805 (figure 8), S906 (figure 9), S1006 (figure 10), S1101 (figure 11), and

S1110 (figure 11).

Figure 2 is described previous to figure 1, however, the Examiner does not find out the

purpose of reference sign 5, in figure 2, until figure 1 is described. The Examiner recommends

including a description of reference sign 5 with the description of figure 2.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4.   Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   **Claims 1, 2, 4, 9, 10, 21, 23, and 25** are rejected under 35 U.S.C. 102(b) as being anticipated by Fukasaka et al.

7.   For **Claim 1**, Fukasaka et al. disclose, as shown in figures 1 – 4 and as stated in column 6 (line 18) – column 11 (line 5), an image input system including an image input device (101 – 104), having a plurality of operation modes (see column 10, lines 10 – 19), and a computer (201 – 204), having a plurality of software programs (application programs; also see column 10, lines 10 – 19) corresponding to the plurality of operation modes. Fukasaka et al. disclose wherein the image input device (101 – 104) is connected to a computer (201 – 204) via either an expansion

board (23) within the computer (201), as shown in figure 1, a signal multiplexing/separating unit

(14/25) within the image input device (102)/computer (202), as shown in figure 2, a data

communication interface (26) within the computer (203), as shown in figure 3, or a high-speed

communication interface (16/29) housed within both the image input device (104) and the

computer (204), such as USB, as shown in figure 4. Furthermore, Fukasaka et al. disclose, as

stated in column 7 (lines 9 – 12), that an application program is automatically initiated, within

the computer (201 – 204), by pressing a shutter button (11) on the image input device (101 –

104) without interfacing with the operator of the image input system. As stated in column 7

(lines 12 – 16), the predetermined application program, such as a TV conference application

program or a TV phone application program, is executed in response to the operation of the

image sensing apparatus (101 – 104) and may be stored in the hard disk (24) of the computer

(201 – 204) or stored in a CD-ROM or other media (as stated in column 9, line 55 – column 10,

line 5). Also, as stated in column 10 (lines 10 – 19), in a case where buttons and switches, such

as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-

stroke), an automatic focusing button, a white balance button, and a zoom button, are provided in

the image sensing apparatus (101 – 104), it is possible to add a function for initiating an

application program by operating one of these buttons and switches or operating these buttons

and switches in different combinations. Since each button or switch can initiate an application

program, each button or switch, on the image input device (101 – 104), is thought of by the

Examiner as a separate operation mode, thereby the image input device has a plurality of

operation modes. In summary, Fukasaka et al. disclose, as stated in column 10 (line 45) –

column 11 (line 4), that the present invention can be applied to any data input apparatus, in

addition to an image sensing apparatus, having any trigger means, such as a switch button. In

such cases, the data input apparatus generates an application execution request signal in response

to an operation of the trigger means and transmits the signal to the computer; in turn, the

computer executes a predetermined application that is initiated in response to the application

execution request.

In regards to the claim language, Fukasaka disclose an image input system (figures 1 – 4)

connectable to an image input device (101 – 104) having a plurality of operation modes (see

column 10, lines 10 – 19, and lines 50 – 55), and includes a computer (201 – 204) having a

plurality of software programs (application programs) corresponding to the plurality of operation

modes ("adding a function for initiating an application" program, as stated in column 10, lines 19

and 20), wherein at least one of the occasions when said image input device (101 – 104) is

connected to said computer (201 – 204; also see **Description A**), when a power supply of said

image input device (101 – 104) is turned on after said image input device is connected to said

computer (201 – 204; also see **Description B**), or when said image input device (101 – 104) is

switched to another operation mode while said image input device (101 – 104) is connected to

said computer (201 – 204; also see **Description C**), the software program corresponding to the

operation mode of said image input device is automatically started.

Descriptions

    A. First, in Fukasaka et al., a situation is disclosed pertaining to the image input device

    always connected to the computer. Second, the application program can only be

    automatically initiated when the image input device is connected to the computer.

B. Again, the application program can only be automatically initiated when the image input device is connected to the computer. Furthermore, the triggering means may be a power switch, as indicated by Fukasaka in column 10 (line 11).

C. Fukasaka et al. clearly disclose a plurality of operation modes and the initiation of a new application program upon the actuating of an operation mode in the image sensing device, as stated in column 10 (lines 10 – 19).

8. As for **Claim 2**, Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), a case where buttons and switches, such as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button, are provided in the image sensing apparatus (101 – 104), that it is possible to add a function for initiating an application program by operating one of these buttons and switches or operating these buttons and switches in different combinations. Since each button or switch can initiate an application program, each button or switch, on the image input device (101 – 104), is thought of by the Examiner as a separate operation mode, thereby the image input device (101 – 104) has a plurality of operation modes.

Furthermore Fukasaka et al. also disclose, as stated in column 10 (lines 20 – 37), a situation, corresponding to an image-sensing mode, wherein the image input device (101 – 104) is constantly transferring a moving image to the computer via the expansion board (23), shown in figure 1, for display on the display (30), and at the same time and while continuing to display moving images, a button or a switch (from the list identified above) triggers the execution of an application program, via the expansion slot (22), also shown in figure 1, to capture a still image.

Moving image signals are output from the image input device (101 – 104) until the button or a switch (from the list identified above) is pressed again.

There are two things to note in regards to the claim language. First, the claim language requires a least one of several alternative choices of a list and thus, to meet the requirements of the claim, only one choice within the list needs to be present within Fukasaka et al. Furthermore, the claim language of Claim 2 does not define each of the operation modes rather it simply lists the operation modes. However, the operation modes, listed in Claim 2, are notoriously well known in the art and will be interpreted by the Examiner as such. Thus, Fukasaka et al. disclose an image-sensing mode.

9.   As for **Claim 4**, the claim language requires defines the image-sensing mode, in that image sensing software is automatically started on said computer (201 – 204), and displays a preview image and senses an image on said computer (201 – 204). Fukasaka et al. states, in column 6 (lines 46 – 49), that image signals are constantly transferred to the computer (201 – 204) from the image input device (101 – 104) where they are displayed on the display (23) until the shutter button (11) is depressed on the image input device (101 - 104) thereby initiating an application program to transfer a still image from the image input device (101 – 104) to the computer (201 – 204), also for display on the display (23). Thus, since Fukasaka et al. is previewing a moving image on the display (23) prior to capturing a still image for transfer to the computer (201 – 204), Fukasaka et al. disclose an image-sensing mode.

10.   As for **Claim 9**, Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), that in a case where buttons and switches, such as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance

button, and a zoom button, are provided in the image sensing apparatus (101 – 104), it is possible

to add a function for initiating an application program by operating one of these buttons and

switches or operating these buttons and switches in different combinations.

Furthermore Fukasaka et al. also disclose, as stated in column 10 (lines 20 – 37), a

situation wherein the image input device (101 – 104) is constantly transferring a moving image

to the computer via the expansion board (23), shown in figure 1, for display on the display (30),

and at the same time and while continuing to display moving images, another button or switch

(from the list identified above) triggers the execution of an application program via the

expansion slot (22), also shown in figure 1, which displays simultaneously, on the display (30),

with the moving image a dialog between the operator and the application program executed.

Thus, in regards to the "given software" requirement of Claim 9, Claim 1, at least

requires a plurality of software programs wherein a corresponding software program is

automatically started. However, Claim 9 is broad in that "given software" does not specify

solely the software program in Claim 1. For example, "given software", while applicable to the

software program of Claim 1, it is also applicable to an operating system of the computer or to

the software required to operate the computer. For the purposes of this rejection, "given"

software" is the software required to display the moving image, provided via the expansion

board (23), as shown in figure 1, and the "predetermined process" is the dialog simultaneously

displayed, provided via the expansion slot (22).

Furthermore, in regards to "one of a process", to meet the requirements of Claim 9, only

one process of the list of alternative processes meets the Claim. Thus, Fukasaka et al. discloses

continuing to run the software to displaying the moving image and initiates another application

program upon a trigger transmitted from the image input device, via the expansion slot (22),

wherein the moving image and the dialog for the application program are displayed

simultaneously on the display (30).

Therefore, Fukasaka et al. disclose wherein when the operation mode of said image input

device is switched to another operation mode while said image input device is connected to said

computer and given software is running (as discussed above), a process (as discussed above) for

continuing to run the software (as discussed above), after that, software corresponding to the new

operation mode is automatically started.

11.   As for **Claim 10**, Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), that in a

case where buttons and switches, such as a power switch, a shutter button which has different

operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance

button, and a zoom button, are provided in the image sensing apparatus (101 – 104), it is possible

to add a function for initiating an application program by operating one of these buttons and

switches or operating these buttons and switches in different combinations.

In regards to the claim language, the Claim requires wherein the operation mode is

switched by a fixed switch or a dial switch on said image input device (101 – 104), or an

operation/setup menu in an LCD panel. To meet the requirements of the claim, Fukasaka et al.

needs to disclose only one of the above listing, because the above listing includes "or", thereby

implying alternative choices and not mandatory choices. Thus, Fukasaka et al. disclose, at least,

a fixed switch (11) on the image input device (101 – 104).

12.   For **Claims 21, 23, and 25**, Fukasaka et al. disclose, as shown in figures 1 – 4 and as

stated in column 6 (line 18) – column 11 (line 5), an image input system including an image

input device (101 – 104), having a plurality of operation modes (see column 10, lines 10 – 19),

and a computer (201 – 204), having a plurality of software programs (application programs; also

see column 10, lines 10 – 19) corresponding to the plurality of operation modes. Fukasaka et al.

disclose wherein the image input device (101 – 104) is connected to a computer (201 – 204) via

either an expansion board (23) within the computer (201), as shown in figure 1, a signal

multiplexing/separating unit (14/25) within the image input device (102)/computer (202), as

shown in figure 2, a data communication interface (26) within the computer (203), as shown in

figure 3, or a high-speed communication interface (16/29) housed within both the image input

device (104) and the computer (204), such as USB, as shown in figure 4. Furthermore, Fukasaka

et al. disclose, as stated in column 7 (lines 9 – 12), that an application program is automatically

initiated, within the computer (201 – 204), by pressing a shutter button (11) on the image input

device (101 – 104) without interfacing with the operator of the image input system. As stated in

column 7 (lines 12 – 16), the predetermined application program, such as a TV conference

application program or a TV phone application program, is executed in response to the operation

of the image sensing apparatus (101 – 104) and may be stored in the hard disk (24) of the

computer (201 – 204) or stored in a CD-ROM or other media (as stated in column 9, line 55 –

column 10, line 5). Also, as stated in column 10 (lines 10 – 19), in a case where buttons and

switches, such as a power switch, a shutter button which has different operation levels (e.g. half-

stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button,

are provided in the image sensing apparatus (101 – 104), it is possible to add a function for

initiating an application program by operating one of these buttons and switches or operating

these buttons and switches in different combinations. In summary, Fukasaka et al. disclose, as

stated in column 10 (line 45) – column 11 (line 4), that the present invention can be applied to

any data input apparatus, in addition to an image sensing apparatus, having any trigger means,

such as a switch button. In such cases, the data input apparatus generates an application

execution request signal in response to an operation of the trigger means and transmits the signal

to the computer; in turn, the computer executes a predetermined application that is initiated in

response to the application execution request.

In regards to the claim language, Fukasaka disclose a method of controlling an image

input system (figures 1 – 4), a storage medium (hard disk 24, CD-ROM, or other media) that

stores a control program for controlling an image input system (figure 1 – 4), and a program

product (application program) that comprises a control program for controlling an image input

system (figures 1- 4), that are connectable to an image input device (101 – 104) having a

plurality of operation modes (see column 10, lines 10 – 19, and lines 50 – 55), and includes a

computer (201 – 204) having a plurality of software programs (application programs)

corresponding to the plurality of operation modes ("adding a function for initiating an

application" program, as stated in column 10, lines 19 and 20), said method/control program

comprising: the step/code of the step of automatically starting the software program

corresponding to the operation mode of said image input device (101 – 104), when said image

input device (101 – 104) is connected to said computer (see **Description A**), when a power

supply of said image input device (101 – 104) is turned on after said image input device (101 –

104) is connected to said computer (201 – 204; also see **Description B**), or when said image

input device is switched to another operation mode while said image input device is connected to

said computer (201 – 204; also see **Description C**).

Descriptions

A. First, in Fukasaka et al., a situation is disclosed pertaining to the image input device always connected to the computer. Second, the application program can only be automatically initiated when the image input device is connected to the computer.

B. Again, the application program can only be automatically initiated when the image input device is connected to the computer. Furthermore, the triggering means may be a power switch, as indicated by Fukasaka in column 10 (line 11).

C. Fukasaka et al. clearly disclose a plurality of operation modes and the initiation of a new application program upon the actuating of an operation mode in the image sensing device, as stated in column 10 (lines 10 – 19).

Claim Rejections - 35 USC § 103

13.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14.   **Claims 7, 8, 11, 12, 14, 17 – 20, 22, 24, and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasaka et al.

15.   For **Claim 11**, Fukasaka et al. disclose, as shown in figures 1 – 4 and as stated in column 6 (line 18) – column 11 (line 5), an image input system including an image input device (101 – 104), having a plurality of operation modes (see column 10, lines 10 – 19), and a computer (201

– 204), having a plurality of software programs (application programs; also see column 10, lines

10 – 19) corresponding to the plurality of operation modes. Fukasaka et al. disclose wherein the

image input device (101 – 104) is connected to a computer (201 – 204) via either an expansion

board (23) within the computer (201), as shown in figure 1, a signal multiplexing/separating unit

(14/25) within the image input device (102)/computer (202), as shown in figure 2, a data

communication interface (26) within the computer (203), as shown in figure 3, or a high-speed

communication interface (16/29) housed within both the image input device (104) and the

computer (204), such as USB, as shown in figure 4. Furthermore, Fukasaka et al. disclose, as

stated in column 7 (lines 9 – 12), that an application program is automatically initiated, within

the computer (201 – 204), by pressing a shutter button (11) on the image input device (101 –

104) without interfacing with the operator of the image input system. As stated in column 7

(lines 12 – 16), the predetermined application program, such as a TV conference application

program or a TV phone application program, is executed in response to the operation of the

image sensing apparatus (101 – 104) and may be stored in the hard disk (24) of the computer

(201 – 204) or stored in a CD-ROM or other media (as stated in column 9, line 55 – column 10,

line 5). Also, as stated in column 10 (lines 10 – 19), in a case where buttons and switches, such

as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-

stroke), an automatic focusing button, a white balance button, and a zoom button, are provided in

the image sensing apparatus (101 – 104), it is possible to add a function for initiating an

application program by operating one of these buttons and switches or operating these buttons

and switches in different combinations. In summary, Fukasaka et al. disclose, as stated in

column 10 (line 45) – column 11 (line 4), that the present invention can be applied to any data

input apparatus, in addition to an image sensing apparatus, having any trigger means, such as a

switch button. In such cases, the data input apparatus generates an application execution request

signal in response to an operation of the trigger means and transmits the signal to the computer;

in turn, the computer executes a predetermined application that is initiated in response to the

application execution request.

In regards to the claim language, Fukasaka disclose an image input system (figures 1 – 4)

connectable to an image input device (101 – 104) having a plurality of operation modes (see

column 10, lines 10 – 19, and lines 50 – 55), and includes a computer (201 – 204) having a

plurality of software programs (application programs) corresponding to the plurality of operation

modes ("adding a function for initiating an application" program, as stated in column 10, lines 19

and 20), wherein at least one of the occasions when said image input device (101 – 104) is

connected to said computer (201 – 204; also see **Description A**), when a power supply of said

image input device (101 – 104) is turned on after said image input device is connected to said

computer (201 – 204; also see **Description B**), or when said image input device (101 – 104) is

switched to another operation mode while said image input device (101 – 104) is connected to

said computer (201 – 204; also see **Description C**), the software program corresponding to the

operation mode of said image input device is automatically started.

Fukasaka et al. clearly disclose initiating a plurality of application programs

corresponding to a plurality of operation modes, however, Fukasaka et al. do not disclose a

single software program that initiates a plurality of modes corresponding to the plurality of

operation modes. As noted above, the predetermined application program is executed in

response to the operation of the image sensing apparatus and may be stored in the hard disk of

the computer, in a CD-ROM, or other media. At the time the invention was made, one with

ordinary skill in the art would have been motivated to include a single software program that

initiates a plurality of modes corresponding to the plurality of operation modes rather than a

plurality of application programs that are initiated according to a plurality of operation modes as

a means to reduce the computer-user waiting time since initiating a plurality of programs

requires more processing than initiating a single program. Therefore, at the time the invention

was made, it would have been obvious to one with ordinary skill in the art to also include a

single software program that initiates a plurality of modes corresponding to the plurality of

operation modes rather than a plurality of application programs that are initiated according to a

plurality of operation modes.

Descriptions

A. First, in Fukasaka et al., a situation is disclosed pertaining to the image input device

always connected to the computer. Second, the application program can only be

automatically initiated when the image input device is connected to the computer.

B. Again, the application program can only be automatically initiated when the image

input device is connected to the computer. Furthermore, the triggering means may be a

power switch, as indicated by Fukasaka in column 10 (line 11).

C. Fukasaka et al. clearly disclose a plurality of operation modes and the initiation of a

new application program upon the actuating of an operation mode in the image sensing

device, as stated in column 10 (lines 10 – 19).

16.   As for **Claim 12**, Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), a case

where buttons and switches, such as a power switch, a shutter button which has different

operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance

button, and a zoom button, are provided in the image sensing apparatus (101 – 104), that it is

possible to add a function for initiating an application program by operating one of these buttons

and switches or operating these buttons and switches in different combinations. Since each

button or switch can initiate an application program, each button or switch, on the image input

device (101 – 104), is thought of by the Examiner as a separate operation mode, thereby the

image input device (101 – 104) has a plurality of operation modes.

Furthermore Fukasaka et al. also disclose, as stated in column 10 (lines 20 – 37), a

situation, corresponding to an image-sensing mode, wherein the image input device (101 – 104)

is constantly transferring a moving image to the computer via the expansion board (23), shown in

figure 1, for display on the display (30), and at the same time and while continuing to display

moving images, a button or a switch (from the list identified above) triggers the execution of an

application program, via the expansion slot (22), also shown in figure 1, to capture a still image.

Moving image signals are output from the image input device (101 – 104) until the button or a

switch (from the list identified above) is pressed again.

There are two things to note in regards to the claim language. First, the claim language

requires a least one of several alternative choices of a list and thus, to meet the requirements of

the claim, only one choice within the list needs to be present within Fukasaka et al. Furthermore,

the claim language of Claim 2 does not define each of the operation modes rather it simply lists

the operation modes. However, the operation modes, listed in Claim 2, are notoriously well

known in the art and will be interpreted by the Examiner as such. Thus, Fukasaka et al. disclose

an image-sensing mode.

17.   As for **Claim 14**, the claim language requires defines the image-sensing mode, in that

image sensing software is automatically started on said computer (201 – 204), and displays a

preview image and senses an image on said computer (201 – 204). Fukasaka et al. states, in

column 6 (lines 46 – 49), that image signals are constantly transferred to the computer (201 –

204) from the image input device (101 – 104) where they are displayed on the display (23) until

the shutter button (11) is depressed on the image input device (101 - 104) thereby initiating an

application program to transfer a still image from the image input device (101 – 104) to the

computer (201 – 204), also for display on the display (23). Thus, since Fukasaka et al. is

previewing a moving image on the display (23) prior to capturing a still image for transfer to the

computer (201 – 204), Fukasaka et al. disclose an image-sensing mode.

18.   As for **Claims 7 and 17**, Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19),

that in a case where buttons and switches, such as a power switch, a shutter button which has

different operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white

balance button, and a zoom button, are provided in the image sensing apparatus (101 – 104), it is

possible to add a function for initiating an application program by operating one of these buttons

and switches or operating these buttons and switches in different combinations.

Furthermore Fukasaka et al. also disclose, as stated in column 10 (lines 20 – 37), a

situation wherein the image input device (101 – 104) is constantly transferring a moving image

to the computer via the expansion board (23), shown in figure 1, for display on the display (30),

and at the same time and while continuing to display moving images, another button or switch

(from the list identified above) triggers the execution of an application program via the

expansion slot (22), the display (30), simultaneously displays, along with the moving image, a

dialog between the operator and the application program executed.

Thus, in regards to the "given software" requirement of Claim 7, Claim 1, at least

requires a plurality of software programs wherein a corresponding software program is

automatically started. However, Claim 7 is broad in that "given software" does not specify

solely the software program in Claim 1. For example, "given software", while applicable to the

software program of Claim 1, it is also applicable to an operating system of the computer or to

the software required to operate the computer. For the purposes of this rejection, "given"

software" is the software required to display the moving image, provided via the expansion

board (23), as shown in figure 1, and the "predetermined process" is the dialog simultaneously

displayed.

As just described, Fukasaka et al. only disclose that various buttons or switches may

trigger an application program, however, Fukasaka et al. do not disclose the details regarding the

trigger and, more specifically, do not disclose wherein when the power supply of said image

input device is turned off while said image input device is connected to said computer and given

software is running, the software executes a predetermined process.

At the time the invention was made, one with ordinary skill in the art would have been

motivated to include wherein when the power supply switch is turned off when the image input

device (101 – 104) is connected (always connected) to said computer (201 – 204) and given

software (moving image preview on the display) is running, the software executes a

predetermined process, such as displaying a dialog (see column 10, lines 20 – 37) to inform the

user that the camera is turned off, as a means for providing the user ease and efficiency when debugging the system in the case of malfunction, such as a turned off image input unit. Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to include wherein when the power supply switch is turned off when the image input device is connected to said computer and given software is running, the software executes a predetermined process, such as displaying a dialog to inform the user that the image input device is turned off.

19.   As for **Claims 8 and 18**, as shown in regards to Claims 7 and 17, respectively, it would have been obvious to one with ordinary skill in the art to include wherein when the power supply switch is turned off when the image input device is connected to said computer and given software is running, the software executes a predetermined process, such as displaying a dialog to inform the user that the image input device is turned off.

Thus, according to the obviousness, the predetermined process is displaying a dialog to inform the user that the image input device is turned. According to Fukasaka et al., the dialog is displayed simultaneously with the moving image. As stated above, the Examiner interpreted the displaying of a moving image, as the given software. Thus, Fukasaka et al. disclose a process for continuing to run the software. Furthermore, in regards to "one of a process", to meet the requirements of Claim 18, only one process of the list of alternative processes meets the claim.

20.   As for **Claim 19**, Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), that in a case where buttons and switches, such as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button, are provided in the image sensing apparatus (101 – 104), it is possible

to add a function for initiating an application program by operating one of these buttons and

switches or operating these buttons and switches in different combinations.

Furthermore Fukasaka et al. also disclose, as stated in column 10 (lines 20 – 37), a

situation wherein the image input device (101 – 104) is constantly transferring a moving image

to the computer via the expansion board (23), shown in figure 1, for display on the display (30),

and at the same time and while continuing to display moving images, another button or switch

(from the list identified above) triggers the execution of an application program via the

expansion slot (22), also shown in figure 1, which displays simultaneously, on the display (30),

with the moving image a dialog between the operator and the application program executed.

Thus, in regards to the "given software" requirement of Claim 19, Claim 1, at least

requires a plurality of software programs wherein a corresponding software program is

automatically started. However, Claim 19 is broad in that "given software" does not specify

solely the software program in Claim 1. For example, "given software", while applicable to the

software program of Claim 1, it is also applicable to an operating system of the computer or to

the software required to operate the computer. For the purposes of this rejection, "given"

software" is the software required to display the moving image, provided via the expansion

board (23), as shown in figure 1, and the "predetermined process" is the dialog simultaneously

displayed, provided via the expansion slot (22).

Furthermore, in regards to "one of a process", to meet the requirements of Claim 19, only

one process of the list of alternative processes meets the Claim. Thus, Fukasaka et al. discloses

continuing to run the software to displaying the moving image and initiates another application

program upon a trigger transmitted from the image input device, via the expansion slot (22),

wherein the moving image and the dialog for the application program are displayed simultaneously on the display (30).

Therefore, Fukasaka et al. disclose wherein when the operation mode of said image input device is switched to another operation mode while said image input device is connected to said computer and given software is running (as discussed above), a process (as discussed above) for continuing to run the software (as discussed above), after that, software corresponding to the new operation mode is automatically started.

21.   As for **Claim 20**, Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), that in a case where buttons and switches, such as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button, are provided in the image sensing apparatus (101 – 104), it is possible to add a function for initiating an application program by operating one of these buttons and switches or operating these buttons and switches in different combinations.

In regards to the claim language, the Claim requires wherein the operation mode is switched by a fixed switch or a dial switch on said image input device (101 – 104), or an operation/setup menu in an LCD panel. To meet the requirements of the claim, Fukasaka et al. needs to disclose only one of the above listing, because the above listing includes "or", thereby implying alternative choices and not mandatory choices. Thus, Fukasaka et al. disclose, at least, a fixed switch (11) on the image input device (101 – 104).

22.   For **Claims 22, 24, and 26**, Fukasaka et al. disclose, as shown in figures 1 – 4 and as stated in column 6 (line 18) – column 11 (line 5), an image input system including an image input device (101 – 104), having a plurality of operation modes (see column 10, lines 10 – 19),

and a computer (201 – 204), having a plurality of software programs (application programs; also

see column 10, lines 10 – 19) corresponding to the plurality of operation modes. Fukasaka et al.

disclose wherein the image input device (101 – 104) is connected to a computer (201 – 204) via

either an expansion board (23) within the computer (201), as shown in figure 1, a signal

multiplexing/separating unit (14/25) within the image input device (102)/computer (202), as

shown in figure 2, a data communication interface (26) within the computer (203), as shown in

figure 3, or a high-speed communication interface (16/29) housed within both the image input

device (104) and the computer (204), such as USB, as shown in figure 4. Furthermore, Fukasaka

et al. disclose, as stated in column 7 (lines 9 – 12), that an application program is automatically

initiated, within the computer (201 – 204), by pressing a shutter button (11) on the image input

device (101 – 104) without interfacing with the operator of the image input system. As stated in

column 7 (lines 12 – 16), the predetermined application program, such as a TV conference

application program or a TV phone application program, is executed in response to the operation

of the image sensing apparatus (101 – 104) and may be stored in the hard disk (24) of the

computer (201 – 204) or stored in a CD-ROM or other media (as stated in column 9, line 55 –

column 10, line 5). Also, as stated in column 10 (lines 10 – 19), in a case where buttons and

switches, such as a power switch, a shutter button which has different operation levels (e.g. half-

stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button,

are provided in the image sensing apparatus (101 – 104), it is possible to add a function for

initiating an application program by operating one of these buttons and switches or operating

these buttons and switches in different combinations. In summary, Fukasaka et al. disclose, as

stated in column 10 (line 45) – column 11 (line 4), that the present invention can be applied to

any data input apparatus, in addition to an image sensing apparatus, having any trigger means, such as a switch button. In such cases, the data input apparatus generates an application execution request signal in response to an operation of the trigger means and transmits the signal to the computer; in turn, the computer executes a predetermined application that is initiated in response to the application execution request.

In regards to the claim language, Fukasaka disclose a method of controlling an image input system (figures 1 – 4), a storage medium (hard disk 24, CD-ROM, or other media) that stores a control program for controlling an image input system (figure 1 – 4), and a program product (application program) that comprises a control program for controlling an image input system (figures 1- 4), that are connectable to an image input device (101 – 104) having a plurality of operation modes (see column 10, lines 10 – 19, and lines 50 – 55), and includes a computer (201 – 204) having a plurality of software programs (application programs) corresponding to the plurality of operation modes ("adding a function for initiating an application" program, as stated in column 10, lines 19 and 20), said method/control program comprising: the step/code of the step of automatically starting the software program corresponding to the operation mode of said image input device (101 – 104), when said image input device (101 – 104) is connected to said computer (see **Description A**), when a power supply of said image input device (101 – 104) is turned on after said image input device (101 – 104) is connected to said computer (201 – 204; also see **Description B**), or when said image input device is switched to another operation mode while said image input device is connected to said computer (201 – 204; also see **Description C**).

Fukasaka et al. clearly disclose initiating a plurality of application programs corresponding to a plurality of operation modes, however, Fukasaka et al. do not disclose a single software program that initiates a plurality of modes corresponding to the plurality of operation modes. As noted above, the predetermined application program is executed in response to the operation of the image sensing apparatus and may be stored in the hard disk of the computer, in a CD-ROM, or other media. At the time the invention was made, one with ordinary skill in the art would have been motivated to include a single software program that initiates a plurality of modes corresponding to the plurality of operation modes rather than a plurality of application programs that are initiated according to a plurality of operation modes as a means to reduce the computer-user waiting time since initiating a plurality of programs requires more processing than initiating a single program. Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to also include a single software program that initiates a plurality of modes corresponding to the plurality of operation modes rather than a plurality of application programs that are initiated according to a plurality of operation modes.

Descriptions

A. First, in Fukasaka et al., a situation is disclosed pertaining to the image input device always connected to the computer. Second, the application program can only be automatically initiated when the image input device is connected to the computer.

B. Again, the application program can only be automatically initiated when the image input device is connected to the computer. Furthermore, the triggering means may be a power switch, as indicated by Fukasaka in column 10 (line 11).

C. Fukasaka et al. clearly disclose a plurality of operation modes and the initiation of a new application program upon the actuating of an operation mode in the image sensing device, as stated in column 10 (lines 10 – 19).

23.   **Claims 3, 6, 13, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasaka et al. in view of Norris.

24.   As for **Claims 3 and 13**, the Examiner concluded in regards to Claim 2 and 12, respectively, that the claim language requires a least one of several alternative choices of a list and thus, to meet the requirements of the claim, only one choice within the list needs to be present within Fukasaka et al. Furthermore, the claim language does not define each of the operation modes rather it simply lists the operation modes. However, the operation modes, listed in the claim, are notoriously well known in the art and will be interpreted by the Examiner as such.

Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), a case where buttons and switches, such as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button, are provided in the image sensing apparatus (101 – 104), that it is possible to add a function for initiating an application program to capture a still image by operating one of these buttons and switches or operating these buttons and switches in different combinations. Thus, Fukasaka et

al. only disclose an image-sensing mode wherein various buttons or switches may initiate an application program corresponding to the operation mode.

Fukasaka et al. do not disclose an image playback mode, wherein when in the image playback mode; image browsing software is automatically started on said computer, and loads all images in said image input device.

However, Norris also discloses an image input system. Norris discloses, as shown in figures 1 and 4A and as a stated in column 7 (lines 46 – 61), an image input device (12) and a computer system (18) wherein the image input device (12) has an image playback mode and the computer (18) has image browsing software (the album function 76). As stated in column 1 (lines 26 – 52), at the time the invention was made, one with ordinary skill in the art would have been motivated to provide an image input device (12) with an image playback mode and a computer (18) with image browsing software (76), as taught by Norris, in the image input system that automatically initiates a software program/programs corresponding to the operation mode of an image input device, as disclosed by Fukasaka et al., as a means for providing the user with tools to create an electronic photographic album. Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to provide an image input device with an image playback mode and a computer with image browsing software, as taught by Norris, in the image input system that automatically initiates a software program/programs corresponding to the operation mode of an image input device, as disclosed by Fukasaka et al.

25.   As for **Claims 6 and 16**, the Examiner concluded in regards to Claim 2 and 12, respectively, that the claim language requires a least one of several alternative choices of a list and thus, to meet the requirements of the claim, only one choice within the list needs to be

present within Fukasaka et al. Furthermore, the claim language does not define each of the

operation modes rather it simply lists the operation modes. However, the operation modes, listed

in the claim, are notoriously well known in the art and will be interpreted by the Examiner as

such.

Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), a case where buttons and

switches, such as a power switch, a shutter button which has different operation levels (e.g. half-

stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button,

are provided in the image sensing apparatus (101 – 104), that it is possible to add a function for

initiating an application program to capture a still image by operating one of these buttons and

switches or operating these buttons and switches in different combinations. Thus, Fukasaka et

al. only disclose an image-sensing mode wherein various buttons or switches may initiate an

application program corresponding to the operation mode.

Fukasaka et al. do not disclose a slideshow playback mode, wherein when in the

slideshow playback mode; slideshow playback software is automatically started on said

computer, and automatically loads images in said image input device, and automatically displays

the loaded images on a screen.

However, Norris also discloses an image input system. Norris discloses, as shown in

figures 1 and 4A and as a stated in column 7 (lines 46 – 61), an image input device (12) and a

computer system (18) wherein the image input device (12) has a slideshow playback mode and

the computer (18) has slideshow playback software (the slideshow function 74) that

automatically displays the loaded images on a screen (36). As stated in column 1 (lines 26 – 52),

at the time the invention was made, one with ordinary skill in the art would have been motivated

to provide an image input device (12) with a slideshow playback mode and a computer (18) with

slideshow playback software (74) that automatically displays the loaded images on a screen (36),

as taught by Norris, in the image input system that automatically initiates a software

program/programs corresponding to the operation mode of an image input device, as disclosed

by Fukasaka et al., as a means for allowing the user to systematically view all the loaded images

so as to thoroughly select images for printing and/or permanent storage. Therefore, at the time

the invention was made, it would have been obvious to one with ordinary skill in the art to

provide an image input device with a slideshow playback mode and a computer with slideshow

playback software that automatically displays the loaded images on a screen, as taught by Norris,

in the image input system that automatically initiates a software program/programs

corresponding to the operation mode of an image input device, as disclosed by Fukasaka et al.

26.   **Claims 5 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Fukasaka et al. in view of Driscoll, Jr. et al.

27.   As for **Claims 5 and 15**, the Examiner concluded in regards to Claim 2 and 12,

respectively, that the claim language requires a least one of several alternative choices of a list

and thus, to meet the requirements of the claim, only one choice within the list needs to be

present within Fukasaka et al. Furthermore, the claim language does not define each of the

operation modes rather it simply lists the operation modes. However, the operation modes, listed

in the claim, are notoriously well known in the art and will be interpreted by the Examiner as

such.

Fukasaka et al. disclose, as stated in column 10 (lines 10 – 19), a case where buttons and switches, such as a power switch, a shutter button which has different operation levels (e.g. half-stroke and full-stroke), an automatic focusing button, a white balance button, and a zoom button, are provided in the image sensing apparatus (101 – 104), that it is possible to add a function for initiating an application program to capture a still image by operating one of these buttons and switches or operating these buttons and switches in different combinations. Thus, Fukasaka et al. only disclose an image-sensing mode wherein various buttons or switches may initiate an application program corresponding to the operation mode.

Fukasaka et al. do not disclose a panoramic image sensing mode, wherein when in the panoramic image sensing mode; panoramic image sensing generation software is automatically started on said computer, automatically loads images, which are sensed in the panoramic image sensing mode and stored in said image input device, and automatically executes synthesis process of the loaded images.

However, Driscoll, Jr. et al. also disclose image input system. Driscoll, Jr. et al. disclose, as shown in figures 11C and 13A and as a stated in column 10 (lines 32 – 47), an image input device (1205) and a computer system (1200) wherein the image input device (1205) has a panoramic image sensing mode and the computer (1200) has panoramic image sensing generation software for synthesizing loaded images. As stated in column 1 (lines 28 – 37), at the time the invention was made, one with ordinary skill in the art would have been motivated to provide an image input device (1205) with a panoramic image sensing mode and a computer (1200) for synthesizing the loaded panoramic images, as taught by Driscoll, Jr. et al., in the image input system that automatically initiates a software program/programs corresponding to

the operation mode of an image input device, as disclosed by Fukasaka et al., as a means for

providing a user with an increased field of view so as to allow the user to choose the viewing

direction of the image. Therefore, at the time the invention was made, it would have been

obvious to one with ordinary skill in the art to provide an image input device with a panoramic

image sensing mode and a computer for synthesizing the loaded panoramic images, as taught by

Driscoll, Jr. et al., in the image input system that automatically initiates a software

program/programs corresponding to the operation mode of an image input device, as disclosed

by Fukasaka et al.

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090. The

Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:30 PM and

on alternating Fridays from 7:30 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone number for the

organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent

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JPM
April 19, 2004

WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600